

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2005/000044

## A. CLASSIFICATION OF SUBJECT MATTER

G 01 N 21/47 G 01 N 21/41 G 01 N 21/63 G 01 N 21/21 G 01 N 15/06  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: G 01 N 21/21, 21/41, 21/47, 21/63, 15/06

USPC: 356/317, 356/318, 356/491, 356/517; 73/23.2

ECLA: G 01 N 21/53A, G 01 N 21/63H

F-term: 2G059 AND EE04 AND GG01 AND BB01; 2G059 AND BB01 AND EE05 AND GG01 AND (EE02 OE EE04) AND (FF03 OR FF04)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Canadian Patent Database, USPTO West, Questel-Orbit (Cluster = Patents; Pluspat), JPO IPDL, Inspec

Keywords: "laser", "pump", "probe"; stems of "refraction", "scattering", "polarisation"

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
Y	DE 19646947 (RENK et al.) 14 May 1998 (14-05-1998) ABSTRACT; Fig. 1	1-3,12,14,17,20
Y	US 2003/0155512 (ARNONE et al.) 21 August 2003 (21-08-2003) Whole document	1-3,12,14,17,20
A	US 4591738 (AMER) 27 May 1986 (27-05-1986) Whole document	1,20
A	Victor I. Grishko et al. "Enhancement of the thermal lens signal induced by sample matrix absorption of the probe laser beam." APPLIED OPTICS. Vol. 41, No. 27 (20 September 2002) pp. 5814-5822	1,20

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

05 April 2005 (05-04-2005)

Date of mailing of the international search report

20 April 2005 (20-04-2005)

Name and mailing address of the ISA/CA  
Canadian Intellectual Property Office  
Place du Portage I, C114 - 1st Floor, Box PCT  
50 Victoria Street  
Gatineau, Quebec K1A 0C9  
Facsimile No.: 001(819)953-2476

Authorized officer

Claude Plante (819) 997-1133

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
A	Dmitri Lapotko et al. "Photothermal images of live cells in presence of drugs." JOURNAL OF BIOMEDICAL OPTICS. Vol. 7, No. 3 (July 2002) pp.425-434	1,20
A	H.S.M. de Vries et al. "A real-time, non-intrusive trace gas detector based on laser photothermal deflection." REVIEW OF SCIENTIFIC INSTRUMENTS. Vol. 66, No. 9 (September 1995) pp. 4655-4664	1,20

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Patent Document Cited in Search Report	Publication Date	Patent Family Members	Publication Date
DE 19646947	14-05-1998	NONE	
US 2003/0155512	21-08-2003	AU 3755301 EP 1297321 GB 2359619 WO 01/65238	12-09-2001 01-04-2003 29-08-2001 07-09-2001
US 4591718	27-05-1986	NONE	